

## **REMARKS**

### **Status of the Claims**

Claims 33 and 53-82 are currently pending. Claim 1-32 and 34-52 have been canceled without prejudice or disclaimer of the subject matter claimed therein. Claims 33, 53-57, 61, 62, 64, 66, 68, 70-73, and 78 are withdrawn from consideration as being directed to a non-elected subject matter. Claims 58-60, 63, 65, 67, 69, 74-77, and 79-82 are under examination.

Claims 58, 60, 63, 74, 75, 77, 79, and 82 have been amended. Representative support for the amendment to claims 58, 60, 63, 75, 77, and 79 can be found on page 14, paragraph [0052]. Representative support for the amendment to claims 74 and 82 can be found on page 18, paragraph [0076], line 2.

### **Elected Species**

Applicants respectfully point out that the elected species is cationic iron oxide particles. As is well known, iron oxide particles are not cationic. They have to be modified to become cationic (see Example 1.3 of the specification). Claim 82 has been amended to recite “coated iron oxide particles”.

The Office Action alleges that claims 59, 74, 76, and 82 are withdrawn from consideration as being directed to a non-elected subject matter. However, as set forth in the Response dated April 23, 2008, claims 59, 74, 76, and 82 read on the elected species “particles” as the cationic component. Accordingly, claims 59, 74, 76, and 82 are directed to the elected subject matter. Applicants respectfully request the examination of claims 59, 74, 76, and 82 with claims 58, 60, 63, 65, 67, 69, 75, 77, and 79-81.

### **Rejection Under 102(b)**

Claims 58, 60, 63, 65, 67, and 69 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 96/04017A1 (Kresse, English Equivalent U.S. Patent 6,048,515).

The Office Action alleges that Kresse discloses nanoparticles containing an iron-containing core, a primary coat of synthetic polymer, and a secondary coat of target polymer, and optional auxiliary pharmaceutical substances. However, Kresse does not disclose the claimed invention because Kresse does not disclose associating an active agent with a cationic

component. As explained above, iron oxide particles are not cationic, but must be modified to become cationic. Kresse neither discloses nor suggests modifying iron oxide particles to become cationic.

The Office Action also alleges that because the compositions of Kresse are prepared by the same steps as the claimed process and comprise all the components of the composition prepared by the claimed process, they would inherently exhibit the same zeta potential. However, Applicants respectfully point out that the claims are directed to methods and not to compositions. Therefore, for Kresse to anticipate the claimed invention, Kresse must disclose each of the recited process steps. As discussed above, Kresse neither discloses nor suggests associating an active agent with a cationic component because Kresse only teaches associating a synthesis polymer with the iron oxide, which is not cationic, to yield a basic structural unit, which is then combined with a targeting polymer, which is also not cationic, to yield a final nanoparticle. According to the method of Kresse, a pharmaceutical agent may be added to the basic structural unit or to the final nanoparticle as optional components. However, neither the basic structural unit nor the final nanoparticle is a cationic component.

Moreover, the preferred embodiment of Kresse is associating polymers containing negatively charged carriers to the iron core to form the basic structural unit (see col. 12, line 7-9 and 34-37 and Examples B1-B4) to which the pharmaceutical agent may be added. Accordingly, Kresse teaches away from the claimed method of associating an agent with a positive/cationic component. Thus, the method of Kresse does not disclose the recited process steps.

Further, the method of Kresse is not directed to producing a composition that is effective for targeting an activated vascular site. The method of Kresse does not teach producing a composition that has an optimal zeta potential for specific targeting of an agent to an activated vascular site. Kresse does not disclose the optimal range of zeta potential that is effective for targeting an agent to an activated vascular site. Also, Kresse does not teach enhancing the efficacy of an active agent by associating the active agent with a cationic component to produce a composition having an optimal zeta potential for targeting an activated vascular site. Kresse does not disclose producing compositions having an isoelectric point of above 7.5 for targeting activated vascular site.

Accordingly, because Kresse does not disclose each of the steps of the claimed methods,

Kresse does not anticipate the claimed invention.

### Rejection Under 35 U.S.C. § 103

Claims 75, 77, and 79-81 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 96/04017A1 (U.S. Patent 6,048,515, Kresse) as applied to claims 58, 60, 63, 65, 67, and 69 above, and further in view of Boehm *et al.* (Boehm).

The deficiencies of Kresse are discussed in detail immediately above. As acknowledged by the Office Action (page 6), Kresse fails to teach measuring the zeta potential of the composition or measuring the isoelectric point of the composition.

Boehm does not cure the deficiencies of Kresse. Boehm neither discloses associating an active agent with a cationic component nor suggests producing a composition having an optimal zeta potential for targeting an activated vascular site. Boehm only discloses that zeta potential can improve the characterization of colloidal particles. Moreover, Boehm neither discloses a method of modifying an active agent to enhance its efficacy for targeting an activated vascular site nor teaches selecting a composition having a zeta potential in the range recited in the claims or having an isoelectric point above 7.5 for targeting an activated vascular site.

Further, the cited references do not provide a reason to combine the teachings of the references and to modify the teachings to obtain the claimed invention of associating an active agent with one or more cationic components for targeting an activated vascular site with a reasonable expectation of success. Accordingly, the cited references do not render the claimed invention obvious.

### Conclusion

The foregoing amendments and remarks are being made to place the application in condition for allowance. Applicants respectfully request entry of the amendments, reconsideration, and the timely allowance of the pending claims. A favorable action is awaited. Should the Examiner find that an interview would be helpful to further prosecution of this application, she is invited to telephone the undersigned at her convenience.

If there are any additional fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time

under 37 C.F.R. §1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Dated: January 30, 2009  
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Respectfully submitted,  
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